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112TH CONGRESS
1ST SESSION

H. R. 2090

To improve assessments of and research about energy critical elements, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

JUNE 2, 2011

Mr. HULTGREN (for himself, Mrs. BIGGERT, and Mr. LIPINSKI) introduced the following bill; which was referred to the Committee on Science, Space, and Technology, and in addition to the Committees on Natural Resources and Energy and Commerce, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

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A BILL

To improve assessments of and research about energy critical elements, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Energy Critical Elements Advancement Act of 2011''.

SEC. 2. INFORMATION GATHERING, ANALYSIS, AND DISSEMINATION.

(a) ESTABLISHMENT.—The Secretary of the Interior, acting through the Director of the USGS, and the Secretary of Energy, acting through the Administrator of the Energy Information Administration, shall collaborate to improve assessments of energy critical elements that includes—

(1) discovered and potential resources;

(2) production;

(3) use;

(4) trade;

(5) disposal; and

(6) recycling.

(b) DUTIES.—The entity within the USGS that gathers the information for the assessments under subsection (a) shall—

(1) regularly survey emerging energy technologies and the supply chain for elements throughout the periodic table necessary for those technologies in order to forecast potential supply disruptions; and

(2) make available such information in the aggregate, with appropriate protection of proprietary information, to the United States scientific community, including industry, institutions of higher edu-

cation, and the United States Department of Energy National Laboratories and Technology Centers.

(c) DESIGNATION.—The Director of the USGS shall designate the entity within the USGS that gathers the information for the assessments under subsection (a) as a ''Principal Statistical Agency''.

SEC. 3. RESEARCH.

(a) ESTABLISHMENT.—The Secretary of Energy, in coordination with the Secretary of the Interior, shall establish a research program to advance basic knowledge and enable expanded availability of energy critical elements, including research on basic materials science, chemistry, physics, and engineering associated with energy critical elements, including materials characterization and substitution, recycling, and life-cycle analysis.

(b) RESEARCH PLAN.—In consultation with the Critical and Strategic Mineral Supply Chain Subcommittee of the National Science and Technology Council, the Secretary shall develop and update biennially an integrated research plan to guide program activities.

(c) LIMITATION.—Research under subsection (a) shall be limited to areas that industry is not likely to undertake due to technical and financial uncertainty.

SEC. 4. REPORT.

Within 1 year after the date of enactment of this Act, the Critical and Strategic Mineral Supply Chain Subcommittee of the National Science and Technology Council shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report on the recycling of energy critical elements, including—

(1) the logistics, economic viability, and research and development needs for completing the recycling process;

(2) options for both the Federal Government and industry, including an assessment of the strengths and weaknesses of such options, for improving the rates of collection of post-consumer products containing energy critical elements; and

(3) an analysis of the methods explored and implemented in various states and countries, such as Japan and South Korea.

SEC. 5. DEFINITIONS.

In this Act, the following definitions apply:

(1) ENERGY CRITICAL ELEMENT.—The term ''energy critical element'' means each of the following:

(A) Helium.

(B) Lithium.

(C) Scandium.

(D) Cobalt.

(E) Gallium.

(F) Germanium.

(G) Selenium.

(H) Yttrium.

(I) Ruthenium.

(J) Rhodium.

(K) Palladium.

(L) Silver.

(M) Indium.

(N) Tellurium.

(O) Lanthanum.

(P) Rhenium.

(Q) Osmium.

(R) Iridium.

(S) Platinum.

(T) Cerium.

(U) Praseodymium.

(V) Neodymium.

(W) Samarium.

(X) Europium.

(Y) Gadolinium.

(Z) Terbium.

(AA) Dysprosium.

(BB) Ytterbium.

(CC) Lutetium.

(DD) Any other element designated as an energy critical element by the Critical and Strategic Mineral Supply Chain Subcommittee of the National Science and Technology Council.

(2) USGS.—The term ''USGS'' means the United States Geological Survey.

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